

Richter-Addo's Primary Research Publications
(Univ. of Oklahoma, 1995 - Jan.2004)

12. "The First Metalloporphyrin Nitrosamine Complex: Bis(diethylnitrosamine)(*meso*-tetraphenylporphyrinato)iron(III) Perchlorate." Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *J. Am. Chem. Soc.* **1995**, *117*(29), 7850-7851.

*Highlighted as a Science and Technology Concentrate in *Chemical and Engineering News* (Washington, D.C.) 31 July 1995 issue (p 24), and also highlighted in *New Scientist* (London) in their 26 August 1995 issue (p 14).

13. "Metalloporphyrins with X[N₂O₂]- Ligands. Novel High-Spin (*N*-Phenyl-*N*-nitroso-hydroxylaminato)(*meso*-tetraarylporphyrinato)iron(III)." Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1995**, *34*(23), 5703-5704.
14. "Synthesis, Characterization, and Electrochemistry of Ruthenium Porphyrins Containing a Nitrosyl Axial Ligand." Kadish, K. M.; Adamian, V. A.; Van Caemelbecke, E.; Tan, Z.; Tagliatesta, P.; Bianco, P.; Boschi, T.; Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1996**, *35*(5), 1343-1348.
15. "Synthesis, Characterization, and Spectroelectrochemistry of Cobalt Porphyrins Containing Axially Bound Nitric Oxide." Richter-Addo, G. B.; Hodge, S. J.; Yi, G.-B.; Khan, M. A.; Ma, T.; Van Caemelbecke, E.; Guo, N.; Kadish, K. M. *Inorg. Chem.* **1996**, *35*(22), 6530-6538, and **1997**, *36*(12), 2696 [erratum].
16. "The First Structural Studies of Nitrosoarene Binding to Iron-(II) and -(III) Porphyrins." Wang, L.-S.; Chen, L.; Khan, M. A.; Richter-Addo, G. B. *Chem. Commun.* **1996**, (3), 323-324.
17. "Ruthenium Porphyrins Containing Nitrosyl, Nitrosamine, Thiolate, and Amine Ligands." Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1996**, *35*(12), 3453-3454.
18. "Formal Addition of *S*- and *O*-nitroso Compounds to Metalloporphyrins." Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *Chem. Commun.* **1996**, (17), 2045-2046.

*Highlighted as a Science and Technology Concentrate in *Chemical and Engineering News* (Washington, D.C.) 9 September 1996 issue (p 31), and also highlighted as an Editor's Choice from the Royal Society of Chemistry on the Internet.

19. "The First Structurally Characterized Organometallic Nitrosyl Porphyrin: Structure of Ru(tpp)(NO)(C₆H₄F-*p*) (tpp = *meso*-tetratolylporphyrinato dianion)." Hodge, S. J.; Wang, L.-S.; Khan, M. A.; Young, V. G., Jr.; Richter-Addo, G. B. *Chem. Commun.* **1996**, (19), 2283-2284.

20. "Activation of Thionitrites and Isoamyl Nitrite by Group 8 Metalloporphyrins and the Subsequent Generation of Nitrosyl Thiolates and Alkoxides of Ruthenium and Osmium Porphyrins." Yi, G.-B.; Chen, L.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1997**, *36*(18), 3876-3885.
21. "Nitrosoarene Complexes of Manganese Porphyrins." Fox, S. J.; Chen, L.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1997**, *36*(27), 6465-6467.
22. "Nitrosylation of Octaethylporphyrin Osmium Complexes with Alkyl Nitrites and Thionitrites: Molecular Structures of Three Osmium Porphyrin Derivatives." Chen, L.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1998**, *37*(3), 533-540.
23. "Synthesis, Characterization, and Protonation of a Amide-Containing Thiolate Complex of a Ruthenium Nitrosyl Porphyrin." Yi, G.-B.; Khan, M. A.; Powell, D. R.; Richter-Addo, G. B. *Inorg. Chem.* **1998**, *37*(2), 208-214.
24. "Synthesis, Characterization, and Molecular Structures of Diethylnitrosamine Metalloporphyrin Complexes of Iron, Ruthenium, and Osmium." Chen, L.; Yi, G.-B.; Wang, L.-S.; Dharmawardana, U. R.; Dart, A. C.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1998**, *37*(18), 4677-4688.
25. "Synthesis, Characterization, and Solid-State Molecular Structures of Nitrosoarene Complexes of Osmium Porphyrins." Chen, L.; Khan, M. A.; Richter-Addo, G. B.; Young, V. G., Jr.; Powell, D. R. *Inorg. Chem.* **1998**, *37*(18), 4689-4696.
26. "Synthesis and Characterization of Osmium Nitrosyl Porphyrins Containing Organo, Halogeno and π -Oxo Ligands, and Extensions to the First Organometallic Thionitrosyl Porphyrins." Cheng, L.; Chen, L.; Chung, H.-S.; Khan, M. A.; Richter-Addo, G. B.; Young, V. G., Jr. *Organometallics*, **1998**, *17*(18), 3853-3864.
27. "Photoinduced Metastable Linkage Isomers of Ruthenium Nitrosyl Porphyrins." Fomitchev, D. V.; Coppens, P.; Li, T.; Bagley, K. A.; Chen, L.; Richter-Addo, G. B. *Chem. Commun.* **1999**, (19), 2013-2014.
28. "Structural Consequences of Hydroxamate and Tropolonate Binding to Iron Porphyrins." Cheng, L.; Khan, M. A.; Powell, D. R.; Taylor, R. W.; Richter-Addo, G. B. *Chem. Commun.* **1999**, (19), 1941-1942.
29. "Synthesis and Characterization of Thiolate-Thiol Complexes of Ruthenium Nitrosyl Porphyrins and Their Symmetrical and Unsymmetrical Dithiolate-Bridged Bimetallic Derivatives." Lee, J.; Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **1999**, *38*(20), 4578-4584.

30. "Interactions of Nitric Oxide and Organic Nitroso Compounds with Metalloporphyrins and Heme." Richter-Addo, G. B. *J. Porph. Phthalocyanines*, **2000**, 4(4), 354-357.
31. "First Observation of Photoinduced Nitrosyl Linkage Isomers of Iron Nitrosyl Porphyrins." Cheng, L.; Novoszhilova, I.; Kim, C.; Kovalevsky, A.; Bagley, K. A.; Coppens, P.; Richter-Addo, G. B. *J. Am. Chem. Soc.*, **2000**, 122(29), 7142-7143.
32. "The First Unambiguous Determination of a Nitrosyl-to-Nitrite Conversion in an Iron Nitrosyl Porphyrin." Cheng, L.; Powell, D. R.; Khan, M. A.; Richter-Addo, G. B. *Chem. Commun.* **2000**, (23), 2301-2302.
33. "Synthesis, Characterization, Solid-State Molecular Structures, and Deprotonation Reactions of Cationic Alcohol Complexes of Osmium Nitrosyl Porphyrins." Cheng, L.; Powell, D. R.; Khan, M. A.; Richter-Addo, G. B. *Inorg. Chem.* **2001**, 40(1), 125-133.
34. "Synthesis, Characterization, and Protonation of Octaethylporphyrin Osmium Nitrosyl Complexes Containing Axial Thiolate Ligands. X-ray Structures of an Alkyl Thionitrite (RSNO) and its (OEP)Os(NO)(SR) Addition Product." Lee, J.; Yi, G.-B.; Powell, D. R.; Khan, M. A.; Richter-Addo, G. B. *Can. J. Chem.* **2001**, 79(5/6), 830-840.
35. "Synthesis and Molecular Structures of *N,N*-Dialkyl-4-nitrosoaniline Adducts of Formally d⁶ Metalloporphyrin of Ruthenium and Cobalt." Chen, L.; Fox, J. B., Jr.; Yi, G.-B.; Khan, M. A.; Richter-Addo, G. B. *J. Porph. Phthalocyanines*, **2001**, 5(9), 702-707.
36. "Unexpected Nitrosyl-Group Bending in Six-Coordinate {M(NO)}⁶ π -Bonded Aryl(iron) and -(ruthenium) Porphyrins." Richter-Addo, G. B.; Wheeler, R. A.; Hixson, C. A.; Chen, L.; Khan, M. A.; Ellison, M. K.; Schulz, C. E.; Scheidt, W. R. *J. Am. Chem. Soc.* **2001**, 123(26), 6314-6326.
37. "Kinetics Studies of the Reaction of the Ruthenium Porphyrin Ru(OEP)(CO) with the *S*-Nitrosothiol *N*-Acetyl-1-amino-2-methylpropyl-2-thionitrite." Andreasen, L. V.; Lorkovic, I. M.; Richter-Addo, G. B.; Ford, P. C. *Nitric Oxide: Biol. and Chem.* **2002**, 6(2), 228-235.
38. "Nitrones are Suitable Ligands for Heme Models: X-ray Crystal Structure of the First Metalloporphyrin Nitron Complex." Lee, J.; Twamley, B.; Richter-Addo, G. B. *Chem. Commun.* **2002**, (4), 380-381.
39. "Fiber-Optic Infrared Reflectance Spectroelectrochemistry: Isomerization of a Manganese Pyranil Complex." Shaw, M. J.; Henson, R. L.; Houk, S. E.;

- Westhoff, J. W.; Jones, M. W.; Richter-Addo, G. B. *J. Electroanal. Chem.* **2002**, *534(1)*, 47-53.
40. "Synthesis and Solid-State Molecular Structures of Bis- and Mono-Nitrosobenzene Complexes of Ruthenium Porphyrins." Lee, J.; Twamley, B.; Richter-Addo, G. B. *Can. J. Chem.* **2002**, *80(9)*, 1252-1258.
41. "Synthesis, Characterization, and Molecular Structures of Nitrosyl Nitrito Complexes of Osmium Porphyrins: Disproportionation of Nitric Oxide in Its Reactions with Os(P)(CO) (P = porphyrinato dianion)." Leal, F. A.; Lorkovic, I. M.; Ford, P. C.; Lee, J.; Chen, L.; Torres, L.; Khan, M. A.; Richter-Addo, G. B. *Can. J. Chem.* **2003**, *81(7)*, 872-881.
42. "Crystal Structures of Ferrous Horse Heart Myoglobin Complexed with Nitric Oxide and Nitrosoethane." Copeland, D. M.; West, A. H.; Richter-Addo, G. B. *PROTEINS: Structure, Function, and Genetics* **2003**, *53(2)*, 182-192.
43. "Synthesis, Characterization, and Molecular Structures of Six-Coordinate Manganese Nitrosyl Porphyrins." Zahran, Z. N.; Lee, J.; Alguindigue, S. S.; Khan, M. A.; Richter-Addo, G. B. *Dalton Trans.* **2004**, (1), 44-50..
44. "Synthesis and Molecular Structures of Nitrosoarene Metalloporphyrin Complexes of Ruthenium." Lee, J.; Twamley, B.; Richter-Addo, G. B. *Dalton Trans.* **2004**, (2), 189-196.

Reviews

45. "Binding of Organic Nitroso Compounds to Metalloporphyrins." Richter-Addo, G. B. *Acc. Chem. Res.*, **1999**, *32(6)*, 529-536.
46. "Interactions of Organic Nitroso Compounds with Metals." Lee, J.; Chen, L.; West, A. H.; Richter-Addo, G. B. *Chem. Rev.* **2002**, *102(4)*, 1019-1065.
47. "Introduction: Nitric Oxide Chemistry." Richter-Addo, G. B.; Legzdins, P.; Burstyn, J. *Chem. Rev.* **2002**, *102(4)*, 857-859.

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48. "Binding and Activation of Nitric Oxide by Metalloporphyrins and Heme." Cheng, L.; Richter-Addo, G. B. In *The Porphyrin Handbook*; Kadish, K. M.; Smith, K.; Guilard, R., Eds.; Academic Press: San Diego, 2000; Volume 4. Chapter 33 (pp 219-291).

Primary Research Publications from Research Performed Prior to Arrival at OU

1. "Activation of Formaldoxime by the Cyclopentadienyldinitrosylchromium Cation." Legzdins, P.; Richter-Addo, G. B.; Einstein, F. W. B.; Jones, R. H. *Organometallics* **1987**, 6(8), 1807-1809.
2. "Recent Organometallic Nitrosyl Chemistry." Richter-Addo, G. B.; Legzdins, P. *Chem. Rev.* **1988**, 88(7), 991-1010.
3. "Reduction Behavior of the Complexes Cp'M(NO)X₂ (Cp' = Cp (η^5 -C₅H₅) or Cp* (η^5 -C₅Me₅); M = Mo or W; X = Cl, Br, or I): Synthesis and Characterization of the [Cp'Mo(NO)X₂]⁻ Radical Anions." Herring, F. G.; Legzdins, P.; Richter-Addo, G. B. *Organometallics* **1989**, 8(6), 1485-1493.
4. "Insertions of Electrophiles into Metal-Carbon Bonds: Formation of New Carbon-Nitrogen Linkages Mediated by the (η^5 -Cyclopentadienyl)dinitrosylchromium Group." Legzdins, P.; Richter-Addo, G. B.; Wassink, B.; Einstein, F. W. B.; Jones, R. H.; Willis, A. C. *J. Am. Chem. Soc.* **1989**, 111(6), 2097-2104. [Erratum: **1989**, 111(20), 8062.]
5. "Redox-Active Phenylene-Bridged Polymetallic \square, \square Complexes Containing Iron and Chromium." Richter-Addo, G. B.; Hunter, A. D. *Inorg. Chem.* **1989**, 28(22), 4063-4065.
6. "Arene \square, \square Complexes: Synthesis and Electrochemistry of (η^6 -1,4-C₆H₄XFp)Cr(CO)₃ (X = H, Me, Cl or OMe; Fp = (η^5 -C₅H₅)Fe(CO)₂)." Richter-Addo, G. B.; Hunter, A. D.; Wichrowska, N. *Can. J. Chem.* **1990**, 68(1), 41-48.
7. "Regiospecific Condensation of Methyl Propiolate with 2,3-Dimethyl-2-butene Mediated by the Electrophilic (η^5 -Cyclopentadienyl)dinitrosyl Tetrafluoroborate Salts of the Group 6 Metals." Legzdins, P.; Richter-Addo, G. B.; Einstein, F. W. B.; Jones, R. H. *Organometallics* **1990**, 9(2), 431-439.
8. "New Strategies for Enantioselective Syntheses of 1-Alkyl and 1,4-Dialkyl 1,2,3,4-Tetrahydroisoquinolines: Diastereoselective Additions of Nucleophiles and Electrophiles to Isoquinoline Mediated by an Easily Resolved and Recycled Chiral Transition Metal Auxiliary." Richter-Addo, G. B.; Knight, D. A.; Dewey, M. A.; Arif, A. M.; Gladysz, J. A. *J. Am. Chem. Soc.* **1993**, 115(25), 11863-11873.
9. "Synthesis of Cyclic Imine Complexes of the Chiral Rhenium Lewis Acid [(η^5 -C₅H₅)Re(NO)(PPh₃)]⁺ by Hydride Ion Abstraction from Amido Complexes." Cantrell, W. R., Jr.; Richter-Addo, G. B.; Gladysz, J. A. *J. Organomet. Chem.* **1994**, 472(1-2), 195-204.
10. "Diastereoselective Additions of Nucleophiles and Electrophiles to Isoquinoline and Quinoline Mediated by an Easily Resolved and Recycled Chiral Transition Metal Auxiliary; Enantioselective Syntheses of Alkyl, Dialkyl, and Trialkyl Hydroisoquinoline Derivatives", Stark, G. A.; Dewey, M. A.; Richter-Addo, G. B.; Knight, D. A.; Arif, A. M.; Gladysz, J. A. In "Stereoselective Reactions of Metal-Activated Molecules: Proceedings of the Second Symposium held in Wurzburg, September 21-23, 1994", Werner, H.; Sundermeyer, J., Eds.; Vieweg Press: Wiesbaden, Germany. 1995, pp 51-72.

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11. "Metal Nitrosyls." Richter-Addo, G. B.; Legzdins, P.; Oxford University Press: New York, 1992.